

REMARKS

Reconsideration and allowance of the above-referenced application are respectfully requested.

Drawings

Figures 1A, 1B, and 1C have been amended to include the label "prior art".

35 USC § 102

Claims 1, 4-5, and 7-9 have been rejected under 35 USC 102(e) as allegedly being anticipated by Lin. This rejection is respectfully traversed.

Claim 1 defines a unitary first metal layer coupled to the first and second bumps. Lin does not disclose this feature. Lin's, solder bumps 28 are deposited on separated portions of the second layer of metal 24 (see, inter alia, Lin, col. 3, lines 42-46, Figs. 1f - 1j, 2f - 2j, 3f - 3j, 4h - 4l, 5h - 5l). This second layer of metal 24 is deposited on separated portions of a first layer of metal 18 (see, inter alia, Lin, col. 3, lines 34-36).

Accordingly, all of the claims should be allowable.

35 USC § 103

Claims 2-3 and 10-11 have been rejected under 35 USC 103(a) as allegedly being unpatentable over by Lin in view of alleged admitted prior art. This rejection is respectfully traversed.

Claim 10 defines a unitary second metal layer over the first metal layer that is coupled to the first bump, a third bump and the first metal layer. Lin's second layer of metal 24 provides separated portions on which the solder bumps are formed (see, inter alia, Lin, col. 3, lines 42-46, Figs. 1f - 1j, 2f - 2j, 3f - 3j, 4h - 4l, 5h - 5l). Therefore, the skilled artisan would not have been motivated to adapt the second layer of metal 24 of Lin so that it is unitary. Moreover, there is no suggestion within the current specification which admits that it is known to adapt the arrangement of Fig. 1C to provide more than one bump coupled to the second metal layer. This contention is based solely on hindsight.

Accordingly, claim 10 should be independently allowable.

Claim 11, which is dependent on claim 10, defines the second metal layer as being orthogonal to the first metal layer. Lin does not suggest that the first metal layer 18 and the second metal layer 24 are orthogonal to each other. In addition, Fig. 1j of Lin is a cross-sectional topographical view and there is no indication of an orthogonal relationship between the first and second metal layers 18, 24. As a result, the

skilled artisan would not have been motivated to adapt Lin and the arrangement of Fig. 1C to result in the subject matter of claim 11.

Accordingly, claim 11 should be independently allowable.

Claims 6 and 12 have been rejected under 35 USC 103(a) as allegedly being unpatentable over by Lin in view of Lee. This rejection is respectfully traversed.

Claim 6 defines the first metal layer as being deposited in vias over a unitary first base layer metallization, which is deposited over the top metal layer of the integrated circuit die. Neither Lin nor Lee disclose or otherwise contemplate a unitary base layer metallization. Moreover, neither of these references suggest that a first metal layer may be unitary. Therefore, the skilled artisan would not have been motivated to adapt Lin and Lee to result in the subject matter of claim 6.

Accordingly, claim 6 should be independently allowable.

Claim 12 defines a unitary diffusion barriers over and on sides of the first metal layer. The diffusion barriers of Lee are not unitary, but rather are separated for each portion of the first metal layer (which is in turn separated). As a result, the skilled artisan would have had no motivation to adapt Lin and Lee to achieve the subject matter of claim 12.

Accordingly, claim 12 should be independently allowable.

Concluding comments

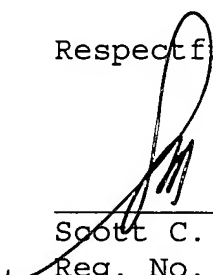
It is believed that all of the pending claims have been addressed in this paper. However, failure to address a specific rejection, issue or comment, does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above are not intended to be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Applicant asks that all claims be allowed. Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: \_\_\_\_\_

2/9/05

  
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Amendments to the Drawings:

The attached replacement sheets of drawings includes changes to (i) Fig. 1A and replaces the original sheet including Fig. 1A; and (ii) Figs. 1B and 1C and replaces the original sheet including Figs. 1B and 1C.

Each of Figs. 1A - 1C has been amended to identify these drawings as relating to Prior Art.

Attachments following last page of this Amendment:

Replacement Sheets (2 pages)